

**ARIZONA GAME AND FISH DEPARTMENT
HERITAGE DATA MANAGEMENT SYSTEM**

Animal Abstract

Element Code: AMACD04010

Data Sensitivity: Yes

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Nyctinomops femorosaccus*

COMMON NAME: Pocketed Free-tailed Bat

SYNONYMS: *Tadarida femorosacca*, *Nyctinomops femorosacca*

FAMILY: Molossidae

AUTHOR, PLACE OF PUBLICATION: *Nyctinomus femorosaccus* Merriam, N. Amer. Fauna 2:23, 1889. *Tadarida femorosacca* Miller, Bull. U.S. Nat. Mus., 128:86, 1924.

TYPE LOCALITY: Agua Caliente (=Palm Springs) Riverside Co., California.

TYPE SPECIMEN:

TAXONOMIC UNIQUENESS:

DESCRIPTION: A small to medium sized bat with deep vertical grooves along its upper lip; length of head and body 54 to 65 mm (2-2.6 in); long narrow wings with wingspread 33-36 cm (13-14 in); forearm 46-51 mm (1.8-2 in); tail protruding free from the interfemoral membrane. The face has many stiff hairs with spoon like tips. A tragus is present and the ears are thick and leathery. The ears are joined at the basal midpoint and extend noticeably beyond the nostrils when laid forward. Long hairs protrude from the toes. Color is from brown to grayish-brown, although sometimes a reddish hue. The ventral surface of the body is slightly paler in color. The basal half of its' hairs are nearly white. The pocket for which this bat is named is an inconspicuous fold of membrane near the knee. Males have chest and throat glands.

AIDS TO IDENTIFICATION: *Tadarida brasiliensis* ears do not join at the midline. All other free-tailed bats in the United States are larger than *N. femorosacca* with adults having forearm measurements greater than 55mm. Distinguished from *N. macrotis* by shorter forearms, from *N. laticaudatus* in Mexico by longer ears (22-24 m), and from *N. aurispinosa* in Mexico by shorter length of skull (less than 20 mm) and shorter maxillary tooth row (less than 7.5 mm).

ILLUSTRATIONS: B&W photos (Barbour and Davis 1969:212, 214)
B&W drawing (Hill 1982:243, Fig. 196)
B&W photos (Hoffmeister 1986:118-119, Figs. 5.54, 5.55)
B&W diagram (Ingles 1954:67)
Color photo (Wilson 1999)
Color photo (Harvey 1999)

TOTAL RANGE: Southern California to the Big Bend area of Texas south through Baja California and central-western Mexico to central Mexico.

RANGE WITHIN ARIZONA: They have been found in Pima, Gila, Mohave, Maricopa, La Paz, Pinal, Graham, Cochise, and Yuma counties.

SPECIES BIOLOGY AND POPULATION TRENDS

BIOLOGY: Owls and snakes have been documented preying on this species. During dry seasons it utilizes water sources with open access and a large available surface area from which to drink. These are audibly vocal bats. When they hit a net, they chirp loudly, and continue to emit squeaks and chirps while being handled. In their day roosts these bats squeak and chatter much of the time. When they first take flight, they produce a shrill, sharp, high pitched chattering call, which may continue while the bats are in flight. As with other free-tailed bats, the flight is swift and lacks the fluttering characteristics of many other bats.

REPRODUCTION: In Tucson, Arizona, females were found to produce one young in late June and early July. The gestation period is about 70-90 days. When the young are born they weigh 3-4 grams or about 22% of the adult weight. The young are flying in mid to late August. Colonies usually consist of less than 100 individuals.

FOOD HABITS: Insectivorous. Usually leaves daytime roosts in the evening, well after dark. Forages mainly on large moths but their diet includes small moths and beetles, with small amounts of a variety of other insects (flying ants, flies, leafhoppers, crickets, stinkbugs, lacewings, and grasshoppers). Peak foraging activity occurs at two different times, at the beginning of the night and again at the end. They catch their food in mid-flight.

HABITAT: Arid lower elevations usually around high cliffs and rugged rock outcrops. Roosts in rock crevices during the day; may also use human built structures. Very noisy during day, may draw attention to their hiding place.

ELEVATION: Based on unpublished data from the Heritage Data Management System, elevation ranges from 190 to 7,520 ft. (58 - 2294 m) (AGFD, accessed 2003).

PLANT COMMUNITY: This bat has been found in a variety of plant associations including desert shrub and pine-oak forests.

POPULATION TRENDS:

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS: None

STATE STATUS:

None

OTHER STATUS:[Bureau of Land Management Sensitive
(USDI, BLM AZ 2000, 2005)]**REASONS FOR ENDANGERMENT:** Extreme northern edge of range.**MANAGEMENT FACTORS:** No known threats to the species have been identified to date. However, some of the general threats to bats could apply. These include impacts to foraging areas from grazing, riparian management, the use of pesticides, and in some places disturbance to roost sites.**PROTECTIVE MEASURES ALREADY TAKEN:****SUGGESTED PROJECTS:** Information is needed on roosting ecology, foraging ecology, seasonal movements and breeding colony distribution. Also little is known about the echolocation calls of this species.**LAND MANAGEMENT/OWNERSHIP:** BIA - Tohono O'odham Nation and San Carlos Reservations; BLM – Havasu, Tucson and Kingman Field Offices; DOD - Yuma Proving Ground and National Guard Military Reservation; FWS - Buenos Aires and Havasu National Wildlife Refuges; NPS - Organ Pipe Cactus National Monument; USFS - Coronado and Tonto National Forests; State Land Department; Alamo Lake State Park; Hualapai Mountain County Park; AMNH Southwestern Research Station; Boyce Thompson Southwestern Arboretum; TNC Hassayampa River Preserve; Private.**SOURCES OF FURTHER INFORMATION****REFERENCES:**

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ADDITIONAL INFORMATION:

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